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UNITED STATES NAVAL
RADIOLOGICAL DEFENSE LABORATORY
SAN FRANCISCO 24. CALIFORNIA

WEEKLY BULLETIN NO. 187 September 7, 1951

#### PATENT ISSUED TO LAB EMPLOYEE

Mr. Frederic Alexis French, a member of the Chem. Phys. Sec., Chemistry Branch, is a co-inventor of the Separation of Nonneutral Electrolytes for which Patent No. 2,556,213 has been issued. Named with Mr. French are Mr. Gino J. Pierotti and Mr. Mott Souders. Jr.

This invention, one of the basic processes for large-scale separation and purification of penicillin, was developed by the Shell Development Company at Emeryville and San Francisco during the war when penicillin was first being made available.

The work was done at the request of the government, and, in the early days, at least half of the penicillin was produced under this process. At that time it was most important not only in increasing the purity, but also the quantity of penicillin produced.

Mr. French is a native of Berkeley and a graduate of the University of California. He, his wife, and two children live at 1296 Oxford Street, Berkeley. Mr. Pierotti is a resident of Albany, and Mr. Souders lives on Piedmont.

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#### CONFERENCE ON LAB DESIGN SLATED FOR NOVEMBER

The American Institute of Architects will meet with the Atomic Energy Commission and the Building Research Advisory Board in Washington, D.C. on November 27 and 28 to discuss problems of designing laboratories.

NRDL Memorandum No. 60 introduces a number of changes in our Industrial Health Program, effective September 4.

CHANGE IN HEALTH PROGRAM

(1) All personnel will report to Health Services Division, Code 3-720, Room 106, Building 508, for initial evaluation of illness or injury (except emergency cases which are handled by the Yard Dispensary).

(2) Minor occupational medical conditions will be treated in the Health Services Division. Others are treated at the Shipyard Dispensary.

(3) Treatment of on-the-job illness will be at the discretion of the Radiological Health Officer, or his representative.

(4) In accidents involving possible radioactive contamination, the Radio-logical Health Officer, or the first available physician, should be notified immediately. Every precaution must be exercised to prevent the spread of contamination.

(5) All sick leave for more than three consecutive days should be reported to the Health Services Division.

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#### THE TIRED BIRD

The Lab has two more juniors-Mary Louise Horvath, daughter of Lou
Horvath of Military Evaluations Branch.
Mary Louise was born on August 28 and
weighed 6 pounds 14 ounces.

-- and Alan Hiro Taketa, son of Tom Taketa, Medical Sciences Branch. Alan's middle name is derived from those of the Best Man and Maid of Honor at his parent's wedding, who are also his Godparents -- Mr. Hîroyuki and Miss Hiroko. Alan weighed 5 pounds 15 ounces.

#### JAPANESE GREAT ANCIENT ARTS

A group of 54 paints are offered in the exhibit of Japanese art at the M. H. De Young Museum which opened yesterday. The early paintings of the 12th and 13th centuries are mainly religious (Buddhist) subjects, but later ones offer a variety including landscapes, flowers, animals, and scenes depicting literature and ancient myths. Scrolls (kakemonos and makimonos) and folding screens are featured. Some of the painting is done on silk or paper, others are in monochrome.

The exhibit will occupy ten of the Museum's galleries which have been transformed into a suitable setting. The art treasures have been lent by Japanese Museums, temples, and private owners including the Emperor. They will be shown for four weeks.

#### LABORATORY VISITORS

CDR Nathan Somenshine, USN, USS Philippine Sea.

Mr. Richard K. Arnold, U.S. Forest Service, S.F.

LCDR Robert Odiorne, and Mr. Lester Fink, Naval Supply Center, Oakland.

LCDR Preston R. Ritter, USN, U.S. Naval School, General Line, Monterey.

Dr. Jonathan S. Thatcher, State College of Washington, Pullman, Washington.

### NEW CIVILIAN PERSONNEL

The Laboratory welcomes four new civilian employees this week.

#### MATERIALS AND ACCOUNTS DIVISION

David Stanley Nisbet, a Laborer, is from San Diego where he attended high school. Before he came to USNRDL, Mr. Nisbet worked with Calvert Fire Insurance Company in San Francisco. He and his wife, Jessie, live at 180 Middle Point Road, San Francisco, phone Mission 7-6470. Mr. Nisbet is fond of all sorts of ball games, especially basketball, baseball, and football.

#### NUCLEONICS DIVISION

Fred Hirsch, a Mechanical Engineer, joined the Research Engineering Branch the last of August. Mr. Hirsch is a native of New York City where he went to school, first at DeWitt Clinton High School, and later New York University. He graduated in mechanical engineering with a B.S. degree in 1940 and a M.S. in 1942. Mr. Hirsch was last employed at the University of California as an assistant professor of engineering design. He and his wife, Leah, and son, Robert, live at 155 Purdue Avenue, Berkeley, phone LAndscape 5-3926.

As President of the East Bay Chapter, Society of Professional Engineers, Mr. Hirsch is primarily interested in the professional development of engineers. He also likes the usual diversions, such as swimming and golf.

Jean Katherine DeMello, a Clerk-Typist, recently came to Physics Branch. A San Franciscan, Miss DeMello graduated from Polytechnic High School in 1950, later taking secretarial work at San Francisco City College. Before joining the Laboratory she was with Berol and Silver in San Francisco. Miss DeMello lives at 1670 - 11th Avenue, San Francisco, phone Montrose 4-2189. Roller Skating is her main recreation.

#### SCIENTIFIC DIRECTOR'S STAFF

Albert W. Payne, a Scientific Staff Assistant, came to the Laboratory from the U.S. Naval Ordnance Test Station at China Lake where for the past five years he was Technical Aide to the Advisory Board. Prior to joining the Laboratory Mr. Payne served a two weeks' reserve duty here as a lieutenant commander in the Navy.

A native of Brazil, Indiana, he received his early education in Chicago, but graduated from Indiana State University, receiving a B.S. degree in physics and chemistry in 1936.

Mr. Payne, his wife, Helen, and sons, John and Albert, Jr., live in Palo Alto, at 3157 Emmerson Street. His present hobby is getting his home settled. He is too busy to think of recreation.

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#### LAS TRAVELERS

With the exception of Mr. Bunney, our representatives to the Chemical Meeting in New York are combining that with other Laboratory business while they are in the east. Dr. Edward R. Tompkins will visit Washington for discussion of the Waste Disposal Program; Dr. L. H. Gevantman will stop in South Bend, Indiana; Mr. L. J. Cole plans to attend a symposium on Trace Elements in Biology; and Mr. Harry Wellhouser will visit Wright Patterson Air Force Base. Dayton, Ohio, in connection with Operation Jangles, Brookhaven Laboratory, Patchogue, N.Y and Knowles Laboratory, Schenectady, N.Y. for discussion of Waste Disposal. Dr. Schwob and Mr. B. Singer left for the meeting last week.

LT J. C. Busby has gone to Clear-field and Ogden, Utah, and from there will go to Washington, D.C., Ft. Belvoir, Va., and Bayonne, N.J. in connection with matters pertaining to Radiological Defense.

Messrs Douglas Macdonald and Richard Soule were recently in Las Vegas, Nevada, on Laboratory business with the AEC.

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#### NO CHANGE IN WORKING HOURS

As a result of the poll held in the Shipyard, Captain Becker has decided that the present working hours will be retained indefinitely.

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NRDL NOTICE

4 September

Subj: Observance of Jewish High Holy Days

1. The Jewish High Holy Days will be observed from sunset 30 September to sunset 10 October 1951. Leave should be to persons of Jewish faith as requested if at all practicable.

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#### TRANSPORTATION TROUBLES

#### San Francisco Ride Wanted

Jean DeMello (Physics) 1670 - 11th Ave. (from 7th & Lawton) MO 4-2189.

Barbara Baker & Sophia Winckur (Sp.Op.) 780 Post St. (Near Jones) GR 4-8799.

#### Rider Wanted

Chick Hayashi (Tech. Info.) From vicinity of UC Hosp., down 17th St. to 3rd. LO 6-3703.

## CALENDAR OF EVENTS At USNRDL

Thursday 13
11:00 AM Seminar - Bio-Med, at
Shop 11, Conference Room,
Speaker: Dr. Hardin B. Jones, Assoc.
Prof. of Physics, Donner
Lab. Univ. Calif. Berkeley.

#### In the Bay Area

Monday 10
8:00 PM Audio Engineering Soc., at
Rm. 100, Sci. Bldg., City
College, San Francisco.
Speaker: Mr. R. M. Smits, Univ. of
Calif. Radiation Lab.
Subj: "A Volume Expander with
Extremely Short Rise Time."

Tuesday 11
7:30 PM Am. Inst. of Elec. Engrs.,
at Rm. 372, Main Quad,
Stanford (West side). Park
on Lomita Dr.
Speaker: Dr. E. L. Ginzton, Dir.
Microwave Lab., Stanford U.
Subj: "Inspection Tour of Stanford Univ. Billion Volt

Friday 14
7:30 PM Am. Inst. of Elec. Engrs.,
at Engrs. Club, 206
Sansome St., San Francisco.

Speakers: Troy D. Graybeal, Robert M. Saunders, Wilson S. Pritchett - all of Univ. of California.

Linear Accelerator."

- Subj: Graybeal -"Transformation of Block Diagram Networks." Saunders & Pritchett -"Indicating Instruments at Servo-mechanism Frequencies."

8:00 PM Nat. Assoc. of Power Engrs., at 3053 - 16th St., S. F.

Speaker: Mr. Skillington, Chief Engr., Sunset Sewage Disposal Plant.

Subj: "Lecture on this disposal plant, second to none in the world."

#### MISCELLANY

As a follow up to the "Leadership Helps," from Milton Wright, we offer this article which recently appeared in the Bureau of Ships DAILY ADMINISTRATIVE BULLETIN:

#### ARE YOU AN EXECUTIVE?

What are the 'musts' for a capable executive? Effective relationships with people, effective intelligence, energy—to name a few. All these characteristics can be acquired. They are not "born-in."

Effective Relationships: The best executives are all approachable, all are good listeners. They are too big to be conscious of rank. From superiors they take orders and accept constructive criticism, not as criticism, but as beneficial suggestions. With associates they collaborate freely. Among subordinates they evoke co-operative effort.

The good executive sets the standard of behavior. By his own honesty, justice, and cooperation with others, he evokes a similar behavior. These are qualities that peoply admire and try to emulate.

Effective Intelligence: There is need for executives among laborers as well as among engineers. An executive must be able to think a problem through, which means to see its many implications from many angles. Then he must decide on a practical course of action. To do this he must develop an analytical attitude. This takes practice and patience.

The best executive is a thinker. This role is often overlooked because the executive spends so much time with people. However, all the while he is listening to them, he is thinking. He has to think because he has to make decisions, and sound decisions are based on sound rationalization of ideas which are gleaned mostly through listening.

Energy: The best executives usually have a great capacity for work coupled with constructive direction of personal effort. An executive's great capacity for work results from his ability to have confidence in others and their work. Relinquishing the motions "my way is the only way," and "I can do it better and quicker myself," the executive has more energy and mind for constructive direction of effort. He channels this energy to achieve results for the organization. His goal is the benefit of the many, not a few. His good will and enthusiasm are effective in that they impel similar efforts in others.

The capable executive has a sense of direction, a plan, and a time-table. Yet he is able to adjust to changes quickly and smoothly. He seems to be motivated by something other than hope of monetary reward or broadened power. He gives the job all he has and lets material reward and better positions come, as they will, for responsibility and appreciation gravitate to the executive who shoulders responsibility willingly and discharges it capably.

These three attributes --EFFECTIVE RELATIONSHIPS, EFFECTIVE INTELLIGENCE, and ENERGY -- are essential and no one can say that one is more important than another. The man of high caliber, like a well-balanced team, operates as a unit.

(From SAE JOURNAL -- C. Tyler, Development Department, E. I. dupont de Nemours & Co., Inc.)

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#### EXECUTIVE TEAMWORK

Going a step farther than the requisites for a good executive, RADM Wesley Hague pointed out in a speech at a conference in Washington the value of teamwork between executives:

"Unless teamwork is achieved between the principal officials of an organization there cannot be teamwork throughout the organization as a whole. There is a rather simple means, readily at hand, for insuring teamwork between the top officials of an organization. That is for the chief executive not only to welcome participation by his senior officials in the formation of policy, but to require it. The setting up of a planning council, composed of heads of units. to regularly discuss the problems and advise as to their solution, is not only an automatic device which will go far toward insuring teamwork where teamwork is essential, but also is a means of bringing to bear on those problems the collective wisdom and experience of those main assistants. None of us, regardless of how rich our background may be, is wise enough or experienced enough to insure 100-percent wise decisions 100-percent of the time...."

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Some People grow under responsibility, others merely swell.

---Hubbell

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# Accessions to the Technical Information Division For Week Ending Wednesday, September 5, 1951

Unclassified and Declassified Documents added to the Library Document Room, Building 351, Include:

KOOm' Durrang	
AD-122 (H)	RADON EXPOSURE IN SUBMARINES (R. K. Skow, et al.)
AECD-3163	AUTOMATIC CONTROL OF POWER REACTORS (M. A. Schultz)
AECD~3187	THE USE OF THE PAPER COLUMN SEPARATION IN THE ESTIMATION OF MICROGRAM QUANTITIES OF URANIUM (Richard H. Kennedy)
AECD-3213	ALUMINUM TITANATE AS A CERAMIC MATERIAL (W. J. Koch, et al.)
AEC MISCEL- LANEOUS	AEC BULLETIN NO. 69 (Technical Information Service)
AECU-1333	PREPARATION OF L-ARABINOSE-1-C14 (D. A. Rappoport, et al.)
AECU-1534	THE EFFECTS OF IONIZING RADIATIONS ON LIQUIDS (Sheffield Gordon, et al.)
ANL-4571	QUARTERLY REPORT, NOVEMBER, DECEMBER, 1950 AND JANUARY 1951 (Austin M. Brues)
F2 4204-51 - F2 4243-51	ABSTRACTS OF TECHNICAL INTELLIGENCE DOCUMENTS (Office of Naval Intelligence)
HW-21487	ZIRCONIUM CHEMISTRY THE NITRATE AND THENOYL TRIFLUORACETONE COMPLEXES AND THE HYDROLYTIC SPECIES (W. H. McVey)
NM 001 066, 01,01	A COMPOSITE SENSORY PROJECTION AREA IN THE CEREBRAL CORTEX OF THE CAT (Walter A. Mickle, et al.)
NP-3040	MEDICAL EFFECTS OF ATOMIC BOMBS (Ashley W. Oughterson, et al.)
ORNL-1040	THE DESIGN AND CONSTRUCTION OF AN ICE CALORIMETER (R. F. Redmond, et al.)

SOME THEORETICAL PROBLEMS IN NUCLEAR ALIGNMENT

(J. M. Jauch, et al.)

ORNL-1074